



SEQUENCE LISTING

<110> Pan, Clark
Tsutsumi, Manami
Shanafelt, Armen B.

<120> Pituitary Adenylate Cyclase Activating Peptide (PACAP) Receptor 3
(R3) Agonists an Their Pharmacological Methods of Use

<130> MSB 7272P2

<140> US 09/671,773
<141> 2000-09-27

<150> US 09/595,280
<151> 2000-06-15

<150> US 09/407,832
<151> 1999-09-28

<160> 343

<170> PatentIn version 3.3

<210> 1
<211> 28
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> MOD_RES
<222> (28)..(28)
<223> AMIDATION

<400> 1

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Val Lys Lys Tyr Leu Asn Ser Ile Leu Asn
20 25

<210> 2
<211> 38
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> MOD_RES
<222> (38)..(38)
<223> AMIDATION

<400> 2

His Ser Asp Gly Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Lys Gln
1 5 10 15

Met Ala Val Lys Lys Tyr Leu Ala Ala Val Leu Gly Lys Arg Tyr Lys
20 25 30

Gln Arg Val Lys Asn Lys
35

<210> 3
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> MOD_RES
<222> (30)..(30)
<223> AMIDATION

<400> 3

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg
20 25 30

<210> 4
<211> 39
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> MOD_RES
<222> (39)..(39)
<223> AMIDATION

<400> 4

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 5
<211> 31
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> MOD_RES
<222> (1)..(1)
<223> ACETYLTATION

<220>
<221> MISC_FEATURE
<222> (17)..(17)
<223> Nle

<220>
<221> MOD_RES
<222> (31)..(31)
<223> AMIDATION

<400> 5

His Ser Asp Ala Val Phe Thr Glu Asn Tyr Thr Lys Leu Arg Lys Gln
1 5 10 15

Xaa Ala Ala Lys Lys Tyr Leu Asn Asp Leu Lys Lys Gly Gly Thr
20 25 30

<210> 6
<211> 31
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> MOD_RES
<222> (1)..(1)
<223> ACETYLTATION

<220>
<221> MOD_RES
<222> (31)..(31)
<223> AMIDATION

<400> 6

His Ser Asp Ala Val Phe Thr Glu Asn Tyr Thr Lys Leu Arg Lys Gln
1 5 10 15

Leu Ala Ala Lys Lys Tyr Leu Asn Asp Leu Lys Lys Gly Gly Thr
20 25 30

<210> 7

<211> 31
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> MOD_RES
<222> (1)..(1)
<223> ACETYLTATION

<400> 7

His Ser Asp Ala Val Phe Thr Glu Asn Tyr Thr Lys Leu Arg Lys Gln
1 5 10 15

Leu Ala Ala Lys Lys Tyr Leu Asn Asp Leu Lys Lys Gly Gly Thr
20 25 30

<210> 8
<211> 31
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(31)

<400> 8

His Ser Asp Ala Val Phe Thr Glu Asn Tyr Thr Lys Leu Arg Lys Gln
1 5 10 15

Leu Ala Ala Lys Lys Tyr Leu Asn Asp Leu Lys Lys Gly Gly Thr
20 25 30

<210> 9
<211> 28
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> MOD_RES
<222> (1)..(1)
<223> ACETYLTATION

<220>
<221> MISC_FEATURE
<222> (10)..(10)
<223> Xaa is methoxy-Tyr

<220>
<221> MISC_FEATURE
<222> (17)..(17)
<223> Nle

<220>
<221> MOD_RES
<222> (28)..(28)
<223> AMIDATION

<400> 9

His Ser Asp Ala Val Phe Thr Glu Asn Xaa Thr Lys Leu Arg Lys Gln
1 5 10 15

Xaa Ala Ala Lys Lys Tyr Leu Asn Asp Leu Lys Lys
20 25

<210> 10
<211> 28
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(28)

<400> 10

His Ser Asp Ala Val Phe Thr Glu Asn Tyr Thr Lys Leu Arg Lys Gln
1 5 10 15

Leu Ala Ala Lys Lys Tyr Leu Asn Asp Leu Lys Lys
20 25

<210> 11
<211> 28
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> MOD_RES
<222> (28)..(28)
<223> AMIDATION

<400> 11

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Val Lys Lys Tyr Leu Asn Ser Ile Lys Lys
20 25

<210> 12
<211> 31
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(31)

<400> 12

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Val Lys Lys Tyr Leu Asn Ser Ile Lys Lys Gly Gly Thr
20 25 30

<210> 13
<211> 31
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(31)

<400> 13

His Ser Asp Ala Val Phe Thr Glu Asn Tyr Thr Lys Leu Arg Lys Gln
1 5 10 15

Leu Ala Ala Lys Lys Tyr Leu Asn Asp Leu Leu Asn Gly Gly Thr
20 25 30

<210> 14
<211> 31
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(31)

<400> 14

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Lys Leu Arg Lys Gln
1 5 10 15

Leu Ala Ala Lys Lys Tyr Leu Asn Asp Ile Leu Asn Gly Gly Thr
20 25 30

<210> 15
<211> 31
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(31)

<400> 15

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Leu Ala Ala Lys Lys Tyr Leu Asn Asp Ile Lys Lys Gly Gly Thr
20 25 30

<210> 16
<211> 28
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> MOD_RES
<222> (28)..(28)
<223> AMIDATION

<400> 16

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Leu Ala Ala Lys Lys Tyr Leu Asn Asp Ile Lys Lys
20 25

<210> 17
<211> 31
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(31)

<400> 17

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Val Lys Lys Tyr Leu Asn Asp Leu Lys Lys Gly Gly Thr
20 25 30

<210> 18
<211> 40
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(31)

<400> 18

His Ser Asp Ala Val Phe Thr Glu Asn Tyr Thr Lys Leu Arg Lys Gln
1 5 10 15

Leu Ala Ala Lys Lys Tyr Leu Asn Asp Leu Lys Lys Gly Gly Thr Ser
20 25 30

Trp Cys Glu Pro Gly Trp Cys Arg
35 40

<210> 19
<211> 31
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(31)

<400> 19

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Asp Ile Lys Lys Gly Gly Thr
20 25 30

<210> 20
<211> 31
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(31)

<400> 20

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Leu Ala Val Lys Lys Tyr Leu Asn Asp Ile Lys Lys Gly Gly Thr
20 25 30

<210> 21
<211> 31
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(31)

<400> 21

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Leu Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Lys Gly Gly Thr
20 25 30

<210> 22
<211> 31
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(31)

<400> 22

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Leu Ala Ala Lys Lys Tyr Leu Asn Asp Ile Lys Asn Gly Gly Thr
20 25 30

<210> 23
<211> 31
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(31)

<400> 23

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Leu Ala Val Lys Lys Tyr Leu Asn Ser Ile Lys Lys Gly Gly Thr
20 25 30

<210> 24
<211> 31
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(31)

<400> 24

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Lys Gly Gly Thr
20 25 30

<210> 25
<211> 31
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(31)

<400> 25

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Leu Ala Val Lys Lys Tyr Leu Asn Asp Ile Lys Asn Gly Gly Thr
20 25 30

<210> 26

<211> 31

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>

<221> PEPTIDE

<222> (1)..(31)

<400> 26

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Leu Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Gly Gly Thr
20 25 30

<210> 27

<211> 30

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>

<221> PEPTIDE

<222> (1)..(30)

<400> 27

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Leu Ala Ala Lys Lys Tyr Leu Asn Asp Ile Lys Lys Gly Gly
20 25 30

<210> 28

<211> 29

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(29)

<400> 28

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Leu Ala Ala Lys Lys Tyr Leu Asn Asp Ile Lys Lys Gly
20 25

<210> 29
<211> 28
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(28)

<400> 29

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Leu Ala Ala Lys Lys Tyr Leu Asn Asp Ile Lys Lys
20 25

<210> 30
<211> 29
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(29)

<400> 30

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Leu Ala Ala Lys Lys Tyr Leu Asn Asp Ile Lys Lys Gln
20 25

<210> 31
<211> 30

<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 31

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Leu Ala Ala Lys Lys Tyr Leu Asn Asp Ile Lys Lys Asn Gln
20 25 30

<210> 32
<211> 31
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(31)

<400> 32

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Leu Ala Ala Lys Lys Tyr Leu Asn Asp Ile Lys Lys Lys Arg Tyr
20 25 30

<210> 33
<211> 28
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(28)

<400> 33

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Val Lys Lys Tyr Leu Asn Ser Ile Lys Lys
Page 13

20

25

<210> 34
 <211> 28
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic Construct

<220>
 <221> PEPTIDE
 <222> (1)..(28)

<400> 34

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
 1 5 10 15

Met Ala Val Lys Lys Tyr Leu Asn Ser Ile Lys Asn
 20 25

<210> 35
 <211> 28
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic Construct

<220>
 <221> PEPTIDE
 <222> (1)..(28)

<400> 35

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
 1 5 10 15

Met Ala Val Lys Lys Tyr Leu Asn Ser Ile Leu Lys
 20 25

<210> 36
 <211> 28
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic Construct

<220>
 <221> PEPTIDE
 <222> (1)..(28)

<400> 36

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Glu Leu Arg Lys Gln
1 5 10 15

Met Ala Val Lys Lys Tyr Leu Asn Ser Ile Leu Asn
20 25

<210> 37
<211> 28
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(28)

<400> 37

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Glu Gln
1 5 10 15

Met Ala Val Lys Lys Tyr Leu Asn Ser Ile Leu Asn
20 25

<210> 38
<211> 28
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(28)

<400> 38

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Leu Ala Val Lys Lys Tyr Leu Asn Ser Ile Leu Asn
20 25

<210> 39
<211> 28
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>

<221> PEPTIDE
<222> (1)..(28)

<400> 39

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Leu Asn
20 25

<210> 40
<211> 28
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(28)

<400> 40

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Val Lys Lys Tyr Leu Asn Asp Ile Leu Asn
20 25

<210> 41
<211> 28
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(28)

<400> 41

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn
20 25

<210> 42
<211> 28
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(28)

<400> 42

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Leu Lys
20 25

<210> 43
<211> 28
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(28)

<400> 43

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Lys
20 25

<210> 44
<211> 31
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(31)

<400> 44

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Lys Lys Arg Tyr
20 25 30

<210> 45
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 45

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Lys Lys Arg
20 25 30

<210> 46
<211> 29
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(29)

<400> 46

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Lys Lys
20 25

<210> 47
<211> 31
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(31)

<400> 47

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Arg Tyr
 20 25 30

<210> 48
 <211> 31
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic Construct

<220>
 <221> PEPTIDE
 <222> (1)..(31)

<400> 48

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
 1 5 10 15

Met Ala Val Lys Lys Tyr Leu Asn Ser Ile Lys Lys Lys Arg Tyr
 20 25 30

<210> 49
 <211> 30
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic Construct

<220>
 <221> PEPTIDE
 <222> (1)..(30)

<400> 49

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
 1 5 10 15

Met Ala Val Lys Lys Tyr Leu Asn Ser Ile Lys Lys Lys Arg
 20 25 30

<210> 50
 <211> 29
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic Construct

<220>
 <221> PEPTIDE
 <222> (1)..(29)

<400> 50

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Val Lys Lys Tyr Leu Asn Ser Ile Lys Lys Lys
20 25

<210> 51
<211> 31
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(31)

<400> 51

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Val Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Arg Tyr
20 25 30

<210> 52
<211> 28
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(28)

<400> 52

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Val Ala Ala Lys Lys Tyr Leu Gln Ser Ile Lys Lys
20 25

<210> 53
<211> 28
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
 <221> PEPTIDE
 <222> (1)..(28)

<400> 53

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
 1 5 10 15

Ile Ala Ala Lys Lys Tyr Leu Gln Thr Ile Lys Lys
 20 25

<210> 54
 <211> 144
 <212> DNA
 <213> Artificial

<220>
 <223> Synthetic Construct

<400> 54
 ggatccatcg aaggtcgtca ctccgatggt atcttcaccg actcctactc tcggtaccgc 60
 aagcagatgg ctgtaaagaa atatctggct gcagtcctag gcaaacgtta caagcaacgc 120
 gttaaaaaca agtaatgact cgag 144

<210> 55
 <211> 114
 <212> DNA
 <213> Artificial

<220>
 <223> Synthetic Construct

<400> 55
 ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
 aaacagatgg ctgttaagaa atacctgaat tccatcctga actaatgact cgag 114

<210> 56
 <211> 123
 <212> DNA
 <213> Artificial

<220>
 <223> Synthetic Construct

<400> 56
 ggatccatcg aaggtcgtca ctccgatgct gttttcaccg aaaactacac caagcttcgt 60
 aaacagctgg cagctaagaa atacctcaac gacctgaaaa agggcggtac ctaatgactc 120
 gag 123

<210> 57
 <211> 38
 <212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>

<221> PEPTIDE

<222> (1)..(38)

<400> 57

His Ser Asp Gly Ile Phe Thr Glu Ser Tyr Ser Arg Tyr Arg Lys Gln
1 5 10 15

Met Ala Val Lys Lys Tyr Leu Ala Ala Leu Lys Lys Lys Arg Tyr Lys
20 25 30

Gln Arg Val Lys Asn Lys
35

<210> 58

<211> 28

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>

<221> MOD_RES

<222> (28)..(28)

<223> AMIDATION

<400> 58

His Ser Asp Ala Val Phe Thr Glu Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Val Lys Lys Tyr Leu Asn Ser Leu Lys Lys
20 25

<210> 59

<211> 31

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>

<221> MOD_RES

<222> (31)..(31)

<223> AMIDATION

<400> 59

His Ser Asp Gly Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Lys Gln
 1 5 10 15

Met Ala Val Lys Lys Tyr Leu Ser Ala Val Arg His Gly Gly Thr
 20 25 30

<210> 60
 <211> 31
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic Construct

<220>
 <221> MOD_RES
 <222> (31)..(31)
 <223> AMIDATION

<400> 60

His Ser Asp Gly Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Lys Gln
 1 5 10 15

Met Ala Val Lys Lys Tyr Leu Ala Ala Val Lys Gln Gly Gly Thr
 20 25 30

<210> 61
 <211> 36
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic Construct

<220>
 <221> MOD_RES
 <222> (31)..(31)
 <223> AMIDATION

<400> 61

His Ser Asp Gly Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Lys Gln
 1 5 10 15

Met Ala Val Lys Lys Tyr Leu Ala Ala Val Lys Lys Tyr Leu Ala Ala
 20 25 30

Val Arg His Gly
 35

<210> 62
 <211> 40
 <212> PRT
 <213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(40)

<400> 62

Ser Trp Cys Glu Pro Gly Trp Cys Arg His Ser Asp Ala Val Phe Thr
1 5 10 15

Glu Asn Tyr Thr Lys Leu Arg Lys Gln Leu Ala Ala Lys Lys Tyr Leu
20 25 30

Asn Asp Leu Lys Lys Gly Gly Thr
35 40

<210> 63
<211> 31
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(31)

<400> 63

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Leu Ala Ala Lys Lys Tyr Leu Asn Asp Ile Leu Lys Gly Gly Thr
20 25 30

<210> 64
<211> 31
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(31)

<400> 64

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Leu Ala Ala Lys Lys Tyr Leu Asn Asp Ile Leu Asn Gly Gly Thr
20 25 30

<210> 65
<211> 31
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(31)

<400> 65

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Leu Ala Val Lys Lys Tyr Leu Asn Asp Ile Leu Lys Gly Gly Thr
20 25 30

<210> 66
<211> 31
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(31)

<400> 66

His Ser Asp Gly Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Lys Gln
1 5 10 15

Leu Ala Ala Lys Lys Tyr Leu Ala Asp Val Lys Lys Gly Gly Thr
20 25 30

<210> 67
<211> 28
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(28)

<400> 67

His Ser Asp Gly Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Lys Gln
1 5 10 15

Leu Ala Ala Lys Lys Tyr Leu Ala Asp Val Lys Lys
20 25

<210> 68

<211> 28

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>

<221> PEPTIDE

<222> (1)..(28)

<400> 68

His Ser Asp Gly Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Lys Gln
1 5 10 15

Leu Ala Val Lys Lys Tyr Leu Ala Ala Val Lys Lys
20 25

<210> 69

<211> 28

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>

<221> PEPTIDE

<222> (1)..(28)

<400> 69

His Ser Asp Gly Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Lys Gln
1 5 10 15

Met Ala Val Lys Lys Tyr Leu Ala Ala Val Lys Lys
20 25

<210> 70

<211> 28

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(28)

<400> 70

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Val Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Lys
20 25

<210> 71
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 71

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Arg
20 25 30

<210> 72
<211> 31
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(31)

<400> 72

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Val Ala Ala Lys Lys Tyr Leu Gln Ser Ile Lys Asn Lys Arg Tyr
20 25 30

<210> 73
<211> 31
<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>

<221> PEPTIDE

<222> (1)..(31)

<400> 73

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Leu Ala Ala Lys Lys Tyr Leu Asn Thr Ile Lys Asn Lys Arg Tyr
20 25 30

<210> 74

<211> 31

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>

<221> PEPTIDE

<222> (1)..(31)

<400> 74

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Val Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Arg Tyr
20 25 30

<210> 75

<211> 31

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>

<221> PEPTIDE

<222> (1)..(31)

<400> 75

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Gln Ser Ile Lys Asn Lys Arg Tyr
20 25 30

<210> 76
<211> 31
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(31)

<400> 76

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Thr Ile Lys Asn Lys Arg Tyr
20 25 30

<210> 77
<211> 31
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(31)

<400> 77

His Ser Asp Ala Val Phe Thr Asp Gln Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Arg Tyr
20 25 30

<210> 78
<211> 31
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(31)

<400> 78

His Ser Asp Ala Val Phe Thr Asp Gln Tyr Thr Arg Leu Arg Lys Gln
Page 29

1 5 10 15

Leu Ala Ala Lys Lys Tyr Leu Asn Thr Ile Lys Asn Lys Arg Tyr
 20 25 30

<210> 79
 <211> 31
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic Construct

<220>
 <221> PEPTIDE
 <222> (1)..(31)

<400> 79

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
 1 5 10 15

Met Ala Ala His Lys Tyr Leu Asn Ser Ile Lys Asn Lys Arg Tyr
 20 25 30

<210> 80
 <211> 31
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic Construct

<220>
 <221> PEPTIDE
 <222> (1)..(31)

<400> 80

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
 1 5 10 15

Met Ala Ala Lys His Tyr Leu Asn Ser Ile Lys Asn Lys Arg Tyr
 20 25 30

<210> 81
 <211> 31
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic Construct

<220>
 <221> PEPTIDE

<222> (1)..(31)

<400> 81

His Ser Asp Ala Val Phe Thr Asp Gln Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Leu Ala Ala His Lys Tyr Leu Asn Thr Ile Lys Asn Lys Arg Tyr
20 25 30

<210> 82

<211> 31

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>

<221> PEPTIDE

<222> (1)..(31)

<400> 82

His Ser Asp Ala Val Phe Thr Asp Gln Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Leu Ala Ala Lys His Tyr Leu Asn Thr Ile Lys Asn Lys Arg Tyr
20 25 30

<210> 83

<211> 30

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>

<221> PEPTIDE

<222> (1)..(30)

<400> 83

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Val Ala Ala Lys Lys Tyr Leu Gln Ser Ile Lys Lys Lys Arg
20 25 30

<210> 84

<211> 30

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>

<221> PEPTIDE

<222> (1)..(30)

<400> 84

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Val Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Lys Lys Arg
20 25 30

<210> 85

<211> 31

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>

<221> PEPTIDE

<222> (1)..(31)

<400> 85

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Val Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Arg Tyr
20 25 30

<210> 86

<211> 30

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>

<221> PEPTIDE

<222> (1)..(30)

<400> 86

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Val Ala Val Lys Lys Tyr Leu Gln Ser Ile Lys Lys Lys Arg
20 25 30

<210> 87

<211> 29
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(29)

<400> 87

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Val Ala Val Lys Lys Tyr Leu Gln Ser Ile Lys Lys Lys
20 25

<210> 88
<211> 31
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(31)

<400> 88

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Val Ala Val Lys Lys Tyr Leu Gln Ser Ile Lys Asn Lys Arg Tyr
20 25 30

<210> 89
<211> 31
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(31)

<400> 89

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Val Ala Ala Lys Lys Tyr Leu Gln Ser Ile Leu Lys Lys Arg Tyr
20 25 30

<210> 90
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 90

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Val Ala Ala Lys Lys Tyr Leu Gln Ser Ile Leu Lys Lys Arg
20 25 30

<210> 91
<211> 29
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(29)

<400> 91

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Val Ala Ala Lys Lys Tyr Leu Gln Ser Ile Leu Lys Lys
20 25

<210> 92
<211> 29
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(29)

<400> 92

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Val Ala Ala Lys Lys Tyr Leu Gln Ser Ile Lys Asn Lys
20 25

<210> 93
<211> 31
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(31)

<400> 93

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Val Ala Val Lys Lys Tyr Leu Gln Ser Ile Leu Lys Lys Arg Tyr
20 25 30

<210> 94
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 94

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Val Ala Val Lys Lys Tyr Leu Gln Ser Ile Leu Lys Lys Arg
20 25 30

<210> 95
<211> 29
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(29)

<400> 95

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Val Ala Val Lys Lys Tyr Leu Gln Ser Ile Leu Lys Lys
20 25

<210> 96
<211> 29
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<400> 96

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Val Ala Val Lys Lys Tyr Leu Gln Ser Ile Lys Asn Lys
20 25

<210> 97
<211> 31
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(31)

<400> 97

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Val Ala Ala Lys Lys Tyr Leu Gln Ser Ile Leu Asn Lys Arg Tyr
20 25 30

<210> 98
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 98

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Val Ala Ala Lys Lys Tyr Leu Gln Ser Ile Leu Asn Lys Arg
20 25 30

<210> 99
<211> 29
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(29)

<400> 99

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Val Ala Ala Lys Lys Tyr Leu Gln Ser Ile Leu Asn Lys
20 25

<210> 100
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 100

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Cys Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Arg
20 25 30

<210> 101
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 101

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Asp Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Arg
20 25 30

<210> 102
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 102

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Glu Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Arg
20 25 30

<210> 103
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 103

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Phe Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Arg
20 25 30

<210> 104
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 104

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Gly Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Arg
20 25 30

<210> 105
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 105

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala His Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Arg
20 25 30

<210> 106
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 106

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ile Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Arg
20 25 30

<210> 107
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 107

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Lys Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Arg
20 25 30

<210> 108
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 108

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Leu Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Arg
20 25 30

<210> 109
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 109

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Met Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Arg
20 25 30

<210> 110

<211> 30

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>

<221> PEPTIDE

<222> (1)..(30)

<400> 110

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Asn Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Arg
20 25 30

<210> 111

<211> 30

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>

<221> PEPTIDE

<222> (1)..(30)

<400> 111

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Pro Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Arg
20 25 30

<210> 112

<211> 30

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 112

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Gln Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Arg
20 25 30

<210> 113
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 113

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Arg Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Arg
20 25 30

<210> 114
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 114

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ser Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Arg
20 25 30

<210> 115
<211> 30

<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 115

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Thr Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Arg
20 25 30

<210> 116
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 116

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Val Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Arg
20 25 30

<210> 117
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 117

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Trp Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Arg
Page 43

20

25

30

<210> 118
 <211> 30
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic Construct

<220>
 <221> PEPTIDE
 <222> (1)..(30)

<400> 118

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
 1 5 10 15

Met Ala Tyr Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Arg
 20 25 30

<210> 119
 <211> 30
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic Construct

<220>
 <221> PEPTIDE
 <222> (1)..(30)

<400> 119

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
 1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Ala Asn Lys Arg
 20 25 30

<210> 120
 <211> 30
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic Construct

<220>
 <221> PEPTIDE
 <222> (1)..(30)

<400> 120

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Cys Asn Lys Arg
20 25 30

<210> 121
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 121

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Asp Asn Lys Arg
20 25 30

<210> 122
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 122

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Glu Asn Lys Arg
20 25 30

<210> 123
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>

<221> PEPTIDE
<222> (1)..(30)

<400> 123

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Phe Asn Lys Arg
20 25 30

<210> 124
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 124

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Gly Asn Lys Arg
20 25 30

<210> 125
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 125

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile His Asn Lys Arg
20 25 30

<210> 126
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 126

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Ile Asn Lys Arg
20 25 30

<210> 127
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 127

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Met Asn Lys Arg
20 25 30

<210> 128
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 128

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Asn Asn Lys Arg
20 25 30

<210> 129
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 129

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Pro Asn Lys Arg
20 25 30

<210> 130
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 130

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Gln Asn Lys Arg
20 25 30

<210> 131
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 131

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Arg Asn Lys Arg
20 25 30

<210> 132
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 132

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Ser Asn Lys Arg
20 25 30

<210> 133
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 133

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Thr Asn Lys Arg
20 25 30

<210> 134
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 134

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Val Asn Lys Arg
20 25 30

<210> 135

<211> 30

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>

<221> PEPTIDE

<222> (1)..(30)

<400> 135

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Trp Asn Lys Arg
20 25 30

<210> 136

<211> 30

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>

<221> PEPTIDE

<222> (1)..(30)

<400> 136

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Tyr Asn Lys Arg
20 25 30

<210> 137

<211> 30

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 137

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 .5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Ala Arg
20 25 30

<210> 138
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 138

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Cys Arg
20 25 30

<210> 139
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 139

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Asp Arg
20 25 30

<210> 140
<211> 30
<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>

<221> PEPTIDE

<222> (1)..(30)

<400> 140

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Glu Arg
20 25 30

<210> 141

<211> 30

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>

<221> PEPTIDE

<222> (1)..(30)

<400> 141

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Phe Arg
20 25 30

<210> 142

<211> 30

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>

<221> PEPTIDE

<222> (1)..(30)

<400> 142

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Gly Arg
20 25 30

<210> 143
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 143

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn His Arg
20 25 30

<210> 144
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<400> 144

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Ile Arg
20 25 30

<210> 145
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 145

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Leu Arg
20 25 30

<210> 146
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 146

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Met Arg
20 25 30

<210> 147
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 147

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Asn Arg
20 25 30

<210> 148
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 148

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
Page 54

1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Pro Arg
20 25 30

<210> 149
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 149

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Gln Arg
20 25 30

<210> 150
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 150

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Arg Arg
20 25 30

<210> 151
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE

<222> (1)..(30)

<400> 151

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Ser Arg
20 25 30

<210> 152

<211> 30

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>

<221> PEPTIDE

<222> (1)..(30)

<400> 152

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Thr Arg
20 25 30

<210> 153

<211> 30

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<400> 153

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Val Arg
20 25 30

<210> 154

<211> 30

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>

<221> PEPTIDE

<222> (1)..(30)

<400> 154

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Trp Arg
20 25 30

<210> 155

<211> 30

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>

<221> PEPTIDE

<222> (1)..(30)

<400> 155

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Tyr Arg
20 25 30

<210> 156

<211> 30

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>

<221> PEPTIDE

<222> (1)..(30)

<400> 156

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Ala
20 25 30

<210> 157

<211> 30

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>

<221> PEPTIDE

<222> (1)..(30)

<400> 157

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Asp
20 25 30

<210> 158

<211> 30

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>

<221> PEPTIDE

<222> (1)..(30)

<400> 158

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Glu
20 25 30

<210> 159

<211> 30

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>

<221> PEPTIDE

<222> (1)..(30)

<400> 159

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Phe
20 25 30

<210> 160

<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 160

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Gly
20 25 30

<210> 161
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 161

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys His
20 25 30

<210> 162
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 162

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Ile
20 25 30

<210> 163
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 163

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Lys
20 25 30

<210> 164
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 164

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Leu
20 25 30

<210> 165
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 165

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Met
20 25 30

<210> 166
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 166

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Asn
20 25 30

<210> 167
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 167

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Pro
20 25 30

<210> 168
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 168

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Gln
20 25 30

<210> 169
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 169

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Ser
20 25 30

<210> 170
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 170

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Thr
20 25 30

<210> 171
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 171

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Val
20 25 30

<210> 172
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 172

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Trp
20 25 30

<210> 173
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 173

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Lys Tyr
20 25 30

<210> 174
<211> 40
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(40)

<400> 174

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Val Ala Ala Lys Lys Tyr Leu Gln Ser Ile Lys Asn Lys Arg Tyr Ser
20 25 30

Trp Cys Glu Pro Gly Trp Cys Arg
35 40

<210> 175
<211> 31
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(31)

<400> 175

His Ser Asp Ala Val Phe Thr Asp Asp Tyr Thr Arg Leu Arg Lys Glu
1 5 10 15

Val Ala Ala Lys Lys Tyr Leu Glu Ser Ile Lys Asp Lys Arg Tyr
20 25 30

<210> 176
<211> 27
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> MOD_RES
<222> (27)..(27)
<223> AMIDATION

<400> 176

Glu Ser Asp Gly Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Lys Gln
1 5 10 15

Met Ala Val Lys Lys Tyr Leu Ala Ala Val Leu
20 25

<210> 177

<211> 27

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>

<221> MOD_RES

<222> (27)..(27)

<223> AMIDATION

<400> 177

His Lys Asp Gly Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Lys Gln
1 5 10 15

Met Ala Val Lys Lys Tyr Leu Ala Ala Val Leu
20 25

<210> 178

<211> 27

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>

<221> MOD_RES

<222> (27)..(27)

<223> AMIDATION

<400> 178

His Ser Lys Gly Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Lys Gln
1 5 10 15

Met Ala Val Lys Lys Tyr Leu Ala Ala Val Leu
20 25

<210> 179

<211> 27

<212> PRT

<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> MOD_RES
<222> (27)..(27)
<223> AMIDATION

<400> 179

His Ser Asp Lys Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Lys Gln
1 5 10 15

Met Ala Val Lys Lys Tyr Leu Ala Ala Val Leu
20 25

<210> 180
<211> 27
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> MOD_RES
<222> (27)..(27)
<223> AMIDATION

<400> 180

His Ser Asp Gly Lys Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Lys Gln
1 5 10 15

Met Ala Val Lys Lys Tyr Leu Ala Ala Val Leu
20 25

<210> 181
<211> 27
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> MOD_RES
<222> (27)..(27)
<223> AMIDATION

<400> 181

His Ser Asp Gly Ile Lys Thr Asp Ser Tyr Ser Arg Tyr Arg Lys Gln
1 5 10 15

Met Ala Val Lys Lys Tyr Leu Ala Ala Val Leu

20

25

<210> 182
 <211> 27
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic Construct

<220>
 <221> MOD_RES
 <222> (27)..(27)
 <223> AMIDATION

<400> 182

His Ser Asp Gly Ile Phe Lys Asp Ser Tyr Ser Arg Tyr Arg Lys Gln
 1 5 10 15

Met Ala Val Lys Lys Tyr Leu Ala Ala Val Leu
 20 25

<210> 183
 <211> 27
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic Construct

<220>
 <221> MOD_RES
 <222> (27)..(27)
 <223> AMIDATION

<400> 183

His Ser Asp Gly Ile Phe Thr Lys Ser Tyr Ser Arg Tyr Arg Lys Gln
 1 5 10 15

Met Ala Val Lys Lys Tyr Leu Ala Ala Val Leu
 20 25

<210> 184
 <211> 27
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic Construct

<220>
 <221> MOD_RES
 <222> (27)..(27)
 <223> AMIDATION

<400> 184

His Ser Asp Gly Ile Phe Thr Asp Lys Tyr Ser Arg Tyr Arg Lys Gln
1 5 10 15

Met Ala Val Lys Lys Tyr Leu Ala Ala Val Leu
20 25

<210> 185

<211> 27

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>

<221> MOD_RES

<222> (27)..(27)

<223> AMIDATION

<400> 185

His Ser Asp Gly Ile Phe Thr Asp Ser Lys Ser Arg Tyr Arg Lys Gln
1 5 10 15

Met Ala Val Lys Lys Tyr Leu Ala Ala Val Leu
20 25

<210> 186

<211> 27

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>

<221> MOD_RES

<222> (27)..(27)

<223> AMIDATION

<400> 186

His Ser Asp Gly Ile Phe Thr Asp Ser Tyr Lys Arg Tyr Arg Lys Gln
1 5 10 15

Met Ala Val Lys Lys Tyr Leu Ala Ala Val Leu
20 25

<210> 187

<211> 27

<212> PRT

<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> MOD_RES
<222> (27)..(27)
<223> AMIDATION

<400> 187

His Ser Asp Gly Ile Phe Thr Asp Ser Tyr Ser Glu Tyr Arg Lys Gln
1 5 10 15

Met Ala Val Lys Lys Tyr Leu Ala Ala Val Leu
20 25

<210> 188
<211> 27
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> MOD_RES
<222> (27)..(27)
<223> AMIDATION

<400> 188

His Ser Asp Gly Ile Phe Thr Asp Ser Tyr Ser Arg Lys Arg Lys Gln
1 5 10 15

Met Ala Val Lys Lys Tyr Leu Ala Ala Val Leu
20 25

<210> 189
<211> 27
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> MOD_RES
<222> (27)..(27)
<223> AMIDATION

<400> 189

His Ser Asp Gly Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Glu Lys Gln
1 5 10 15

Met Ala Val Lys Lys Tyr Leu Ala Ala Val Leu
20 25

20

25

<210> 190
 <211> 27
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic Construct

<220>
 <221> MOD_RES
 <222> (27)..(27)
 <223> AMIDATION

<400> 190

His Ser Asp Gly Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Glu Gln
 1 5 10 15

Met Ala Val Lys Lys Tyr Leu Ala Ala Val Leu
 20 25

<210> 191
 <211> 27
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic Construct

<220>
 <221> MOD_RES
 <222> (27)..(27)
 <223> AMIDATION

<400> 191

His Ser Asp Gly Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Lys Lys
 1 5 10 15

Met Ala Val Lys Lys Tyr Leu Ala Ala Val Leu
 20 25

<210> 192
 <211> 27
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic Construct

<220>
 <221> MOD_RES
 <222> (27)..(27)
 <223> AMIDATION

<400> 192

His Ser Asp Gly Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Lys Gln
1 5 10 15

Lys Ala Val Lys Lys Tyr Leu Ala Ala Val Leu
20 25

<210> 193

<211> 27

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>

<221> MOD_RES

<222> (27)..(27)

<223> AMIDATION

<400> 193

His Ser Asp Gly Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Lys Gln
1 5 10 15

Met Lys Val Lys Lys Tyr Leu Ala Ala Val Leu
20 25

<210> 194

<211> 27

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>

<221> MOD_RES

<222> (27)..(27)

<223> AMIDATION

<400> 194

His Ser Asp Gly Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Lys Gln
1 5 10 15

Met Ala Lys Lys Lys Tyr Leu Ala Ala Val Leu
20 25

<210> 195

<211> 27

<212> PRT

<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> MOD_RES
<222> (27)..(27)
<223> AMIDATION

<400> 195

His Ser Asp Gly Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Lys Gln
1 5 10 15

Met Ala Val Glu Lys Tyr Leu Ala Ala Val Leu
20 25

<210> 196
<211> 27
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> MOD_RES
<222> (27)..(27)
<223> AMIDATION

<400> 196

His Ser Asp Gly Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Lys Gln
1 5 10 15

Met Ala Val Lys Glu Tyr Leu Ala Ala Val Leu
20 25

<210> 197
<211> 27
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> MOD_RES
<222> (27)..(27)
<223> AMIDATION

<400> 197

His Ser Asp Gly Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Lys Gln
1 5 10 15

Met Ala Val Lys Lys Lys Leu Ala Ala Val Leu
Page 72

20

25

<210> 198
 <211> 27
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic Construct

<220>
 <221> MOD_RES
 <222> (27)..(27)
 <223> AMIDATION

<400> 198

His Ser Asp Gly Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Lys Gln
 1 5 10 15

Met Ala Val Lys Lys Tyr Lys Ala Ala Val Leu
 20 25

<210> 199
 <211> 27
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic Construct

<220>
 <221> MOD_RES
 <222> (27)..(27)
 <223> AMIDATION

<400> 199

His Ser Asp Gly Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Lys Gln
 1 5 10 15

Met Ala Val Lys Lys Tyr Leu Lys Ala Val Leu
 20 25

<210> 200
 <211> 27
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic Construct

<220>
 <221> MOD_RES
 <222> (27)..(27)
 <223> AMIDATION

<400> 200

His Ser Asp Gly Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Lys Gln
1 5 10 15

Met Ala Val Lys Lys Tyr Leu Ala Lys Val Leu
20 25

<210> 201

<211> 27

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>

<221> MOD_RES

<222> (27)..(27)

<223> AMIDATION

<400> 201

His Ser Asp Gly Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Lys Gln
1 5 10 15

Met Ala Val Lys Lys Tyr Leu Ala Ala Lys Leu
20 25

<210> 202

<211> 27

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>

<221> MOD_RES

<222> (27)..(27)

<223> AMIDATION

<400> 202

His Ser Asp Gly Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Lys Gln
1 5 10 15

Met Ala Val Lys Lys Tyr Leu Ala Ala Val Lys
20 25

<210> 203

<211> 111

<212> DNA

<213> Artificial

<220>
 <223> Synthetic Construct

<400> 203
 ggatccatcg aaggtcgtca ctccgatggg atcttcaccg actcctactc gaggtaccgc 60
 aagcagatgg ctgtaaagaa atatctggct gcagttctgt aatgactcga g 111

<210> 204
 <211> 123
 <212> DNA
 <213> Artificial

<220>
 <223> Synthetic Construct

<400> 204
 ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
 aaacagatgg ctgttaagaa atacctgaat tccatcaaga aaggcggtag ctaatgactc 120
 gag 123

<210> 205
 <211> 123
 <212> DNA
 <213> Artificial

<220>
 <223> Synthetic Construct

<400> 205
 ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
 aaacagctgg ctgctaagaa atacctgaac gacatcaaga aaggtaggcac ctaatgactc 120
 gag 123

<210> 206
 <211> 109
 <212> DNA
 <213> Artificial

<220>
 <223> Synthetic Construct

<400> 206
 ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
 aaacagctgg ctgctaagaa atacctgaac gacatcaaga aataatgac 109

<210> 207
 <211> 114
 <212> DNA
 <213> Artificial

<220>
 <223> Synthetic Construct

<400> 207

ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
aaacagatgg ctgttaagaa atacctgaat tccatcaaga aataatgact cgag 114

<210> 208
<211> 114
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 208
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
aaacagatgg ctgttaagaa atacctgaat tccatcaaga actaatgact cgag 114

<210> 209
<211> 114
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 209
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
aaacagatgg ctgttaagaa atacctgaat tccatcctga aataatgact cgag 114

<210> 210
<211> 114
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 210
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac ggaactgcgt 60
aaacagatgg ctgttaagaa atacctgaat tccatcctga actaatgact cgag 114

<210> 211
<211> 114
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 211
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
gaacagatgg ctgttaagaa atacctgaat tccatcctga actaatgact cgag 114

<210> 212
<211> 114
<212> DNA

<213> Artificial

<220>

<223> Synthetic Construct

<400> 212

ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60

aaacagctgg ctgttaagaa atacctgaat tccatcctga actaatgact cgag 114

<210> 213

<211> 114

<212> DNA

<213> Artificial

<220>

<223> Synthetic Construct

<400> 213

ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60

aaacagatgg ctgcaaagaa atacctgaat tccatcctga actaatgact cgag 114

<210> 214

<211> 114

<212> DNA

<213> Artificial

<220>

<223> Synthetic Construct

<400> 214

ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60

aaacagatgg ctgttaagaa atacctgaat gacatcctga actaatgact cgag 114

<210> 215

<211> 114

<212> DNA

<213> Artificial

<220>

<223> Synthetic Construct

<400> 215

ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60

aaacagatgg ctgcaaagaa atacctgaat tccatcaaga actaatgact cgag 114

<210> 216

<211> 114

<212> DNA

<213> Artificial

<220>

<223> Synthetic Construct

<400> 216

ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60

aaacagatgg ctgcaaagaa atacctgaat tccatcctga aataatgact cgag 114

<210> 217
<211> 114
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 217
ggatccatcg aaggctcgta ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60

aaacagatgg ctgcaaagaa atacctgaat tccatcaaga aataatgact cgag 114

<210> 218
<211> 123
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 218
ggatccatcg aaggctcgta ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60

aaacagatgg ctgcaaagaa atacctgaat tccatcaaga aaaagcgta ctaatgactc 120
gag 123

<210> 219
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 219
ggatccatcg aaggctcgta ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60

aaacagatgg ctgcaaagaa atacctgaat tccatcaaga aaaagcgta atgactcgag 120

<210> 220
<211> 117
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 220
ggatccatcg aaggctcgta ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60

aaacagatgg ctgcaaagaa atacctgaat tccatcaaga aaaagtaatg actcgag 117

<210> 221
<211> 123
<212> DNA

<213> Artificial

<220>

<223> Synthetic Construct

<400> 221

ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60

aaacagatgg ctgcaaagaa atacctgaat tccatcaaga acaagcgta ctaatgactc 120

gag 123

<210> 222

<211> 123

<212> DNA

<213> Artificial

<220>

<223> Synthetic Construct

<400> 222

ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60

aaacagatgg ctgttaagaa atacctgaat tccatcaaga aaaagcgta ctaatgactc 120

gag 123

<210> 223

<211> 120

<212> DNA

<213> Artificial

<220>

<223> Synthetic Construct

<400> 223

ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60

aaacagatgg ctgttaagaa atacctgaat tccatcaaga aaaagcgta atgactcgag 120

<210> 224

<211> 117

<212> DNA

<213> Artificial

<220>

<223> Synthetic Construct

<400> 224

ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60

aaacagatgg ctgttaagaa atacctgaat tccatcaaga aaaagtaatg actcgag 117

<210> 225

<211> 123

<212> DNA

<213> Artificial

<220>

<223> Synthetic Construct

<400> 225
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
aaacagatgg ctgttaagaa atacctgaat tccatcaaga acaagcgta ctaatgactc 120
gag 123

<210> 226
<211> 114
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 226
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgcttaaga 60
aaacaggttg ctgcaaagaa atacctgcag tccatcaaga aataatgact cgag 114

<210> 227
<211> 114
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 227
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgcttaaga 60
aaacagatcg ctgcaaagaa atacctgcag actatcaaga aataatgact cgag 114

<210> 228
<211> 114
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 228
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgcttaaga 60
aaacaggttg ctgcaaagaa atacctgaat tccatcaaga aataatgact cgag 114

<210> 229
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 229
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
aaacagatgg ctgcaaagaa atacctgaac tccatcaaga acaagcgta atgagaattc 120

<210> 230
 <211> 120
 <212> DNA
 <213> Artificial

 <220>
 <223> Synthetic Construct

 <400> 230
 ggatccatcg aagggtcgta ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
 aaacagatgg ctgcaaagaa atacctgaac tccatcctga acaagcgta atgagaattc 120

 <210> 231
 <211> 120
 <212> DNA
 <213> Artificial

 <220>
 <223> Synthetic Construct

 <400> 231
 ggatccatcg aagggtcgta ctccgacgct gttttcaccg acaactacac gcgcttaaga 60
 aaacagatgg ctgacaagaa atacctgaac tccatcaaga acaagcgta atgagaattc 120

 <210> 232
 <211> 120
 <212> DNA
 <213> Artificial

 <220>
 <223> Synthetic Construct

 <400> 232
 ggatccatcg aagggtcgta ctccgacgct gttttcaccg acaactacac gcgcttaaga 60
 aaacagatgg ctgagaagaa atacctgaac tccatcaaga acaagcgta atgagaattc 120

 <210> 233
 <211> 120
 <212> DNA
 <213> Artificial

 <220>
 <223> Synthetic Construct

 <400> 233
 ggatccatcg aagggtcgta ctccgacgct gttttcaccg acaactacac gcgcttaaga 60
 aaacagatgg ctttcaagaa atacctgaac tccatcaaga acaagcgta atgagaattc 120

 <210> 234
 <211> 120
 <212> DNA
 <213> Artificial

 <220>
 <223> Synthetic Construct

<400> 234
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgcttaaga 60
aaacagatgg ctggcaagaa atacctgaac tccatcaaga acaagcgta atgagaattc 120

<210> 235
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 235
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgcttaaga 60
aaacagatgg ctacacaagaa atacctgaac tccatcaaga acaagcgta atgagaattc 120

<210> 236
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 236
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgcttaaga 60
aaacagatgg ctatcaagaa atacctgaac tccatcaaga acaagcgta atgagaattc 120

<210> 237
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 237
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgcttaaga 60
aaacagatgg ctaaaaagaa atacctgaac tccatcaaga acaagcgta atgagaattc 120

<210> 238
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 238
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgcttaaga 60
aaacagatgg ctctgaagaa atacctgaac tccatcaaga acaagcgta atgagaattc 120

<210> 239

<211> 120
 <212> DNA
 <213> Artificial

 <220>
 <223> Synthetic Construct

 <400> 239
 ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgcttaaga 60
 aaacagatgg ctatgaagaa atacctgaac tccatcaaga acaagcgta atgagaattc 120

 <210> 240
 <211> 120
 <212> DNA
 <213> Artificial

 <220>
 <223> Synthetic Construct

 <400> 240
 ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgcttaaga 60
 aaacagatgg ctaacaagaa atacctgaac tccatcaaga acaagcgta atgagaattc 120

 <210> 241
 <211> 120
 <212> DNA
 <213> Artificial

 <220>
 <223> Synthetic Construct

 <400> 241
 ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgcttaaga 60
 aaacagatgg ctccgaagaa atacctgaac tccatcaaga acaagcgta atgagaattc 120

 <210> 242
 <211> 120
 <212> DNA
 <213> Artificial

 <220>
 <223> Synthetic Construct

 <400> 242
 ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgcttaaga 60
 aaacagatgg ctcaagaagaa atacctgaac tccatcaaga acaagcgta atgagaattc 120

 <210> 243
 <211> 120
 <212> DNA
 <213> Artificial

 <220>
 <223> Synthetic Construct

 <400> 243

ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgcttaaga 60
aaacagatgg ctcgcaagaa atacctgaac tccatcaaga acaagcgta atgagaattc 120

<210> 244
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 244
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgcttaaga 60
aaacagatgg cttccaagaa atacctgaac tccatcaaga acaagcgta atgagaattc 120

<210> 245
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 245
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgcttaaga 60
aaacagatgg ctaccaagaa atacctgaac tccatcaaga acaagcgta atgagaattc 120

<210> 246
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 246
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgcttaaga 60
aaacagatgg ctgtgaagaa atacctgaac tccatcaaga acaagcgta atgagaattc 120

<210> 247
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 247
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgettaaga 60
aaacagatgg cttggaagaa atacctgaac tccatcaaga acaagcgta atgagaattc 120

<210> 248
<211> 120
<212> DNA

<213> Artificial

<220>

<223> Synthetic Construct

<400> 248

ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgcttaaga 60

aaacagatgg cttacaagaa atacctgaac tccatcaaga acaagcgta atgagaattc 120

<210> 249

<211> 120

<212> DNA

<213> Artificial

<220>

<223> Synthetic Construct

<400> 249

ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60

aaacagatgg ctgcaaagaa atacctgaac tccatcgca acaagcgta atgagaattc 120

<210> 250

<211> 120

<212> DNA

<213> Artificial

<220>

<223> Synthetic Construct

<400> 250

ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60

aaacagatgg ctgcaaagaa atacctgaac tccatcgaca acaagcgta atgagaattc 120

<210> 251

<211> 120

<212> DNA

<213> Artificial

<220>

<223> Synthetic Construct

<400> 251

ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60

aaacagatgg ctgcaaagaa atacctgaac tccatcgaga acaagcgta atgagaattc 120

<210> 252

<211> 120

<212> DNA

<213> Artificial

<220>

<223> Synthetic Construct

<400> 252

ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60

aaacagatgg ctgcaaagaa atacctgaac tccatcttca acaagcgta atgagaattc 120

<210> 253
<211> 119
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 253
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60

aaacagatgg ctgcaaagaa atacctgaac tccatcggca acaagcgta agagaattc 119

<210> 254
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 254
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60

aaacagatgg ctgcaaagaa atacctgaac tccatccaca acaagcgta atgagaattc 120

<210> 255
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 255
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60

aaacagatgg ctgcaaagaa atacctgaac tccatcatca acaagcgta atgagaattc 120

<210> 256
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 256
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60

aaacagatgg ctgcaaagaa atacctgaac tccatcatga acaagcgta atgagaattc 120

<210> 257
<211> 120
<212> DNA
<213> Artificial

<220>
 <223> Synthetic Construct

<400> 257
 ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
 aaacagatgg ctgcaaagaa atacctgaac tccatcaaca acaagcgta atgagaattc 120

<210> 258
 <211> 120
 <212> DNA
 <213> Artificial

<220>
 <223> Synthetic Construct

<400> 258
 ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
 aaacagatgg ctgcaaagaa atacctgaac tccatcccga acaagcgta atgagaattc 120

<210> 259
 <211> 120
 <212> DNA
 <213> Artificial

<220>
 <223> Synthetic Construct

<400> 259
 ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
 aaacagatgg ctgcaaagaa atacctgaac tccatccaga acaagcgta atgagaattc 120

<210> 260
 <211> 120
 <212> DNA
 <213> Artificial

<220>
 <223> Synthetic Construct

<400> 260
 ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
 aaacagatgg ctgcaaagaa atacctgaac tccatcagga acaagcgta atgagaattc 120

<210> 261
 <211> 120
 <212> DNA
 <213> Artificial

<220>
 <223> Synthetic Construct

<400> 261
 ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
 aaacagatgg ctgcaaagaa atacctgaac tccatcagca acaagcgta atgagaattc 120

<210> 262
 <211> 120
 <212> DNA
 <213> Artificial

 <220>
 <223> Synthetic Construct

 <400> 262
 ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
 aaacagatgg ctgcaaagaa atacctgaac tccatcacga acaagcgta atgagaattc 120

 <210> 263
 <211> 120
 <212> DNA
 <213> Artificial

 <220>
 <223> Synthetic Construct

 <400> 263
 ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
 aaacagatgg ctgcaaagaa atacctgaac tccatcgtga acaagcgta atgagaattc 120

 <210> 264
 <211> 120
 <212> DNA
 <213> Artificial

 <220>
 <223> Synthetic Construct

 <400> 264
 ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
 aaacagatgg ctgcaaagaa atacctgaac tccatctgga acaagcgta atgagaattc 120

 <210> 265
 <211> 120
 <212> DNA
 <213> Artificial

 <220>
 <223> Synthetic Construct

 <400> 265
 ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
 aaacagatgg ctgcaaagaa atacctgaac tccatctaca acaagcgta atgagaattc 120

 <210> 266
 <211> 120
 <212> DNA
 <213> Artificial

 <220>
 <223> Synthetic Construct

<400> 266
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
aaacagatgg ctgcaaagaa atacctgaac tccatcaaga acgcgcgtta atgagaattc 120

<210> 267
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 267
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
aaacagatgg ctgcaaagaa atacctgaac tccatcaaga acgaccgtta atgagaattc 120

<210> 268
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 268
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
aaacagatgg ctgcaaagaa atacctgaac tccatcaaga acgaacgtta atgagaattc 120

<210> 269
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 269
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
aaacagatgg ctgcaaagaa atacctgaac tccatcaaga acttccgtta atgagaattc 120

<210> 270
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 270
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
aaacagatgg ctgcaaagaa atacctgaac tccatcaaga acggccgtta atgagaattc 120

<210> 271

<211> 120
 <212> DNA
 <213> Artificial

 <220>
 <223> Synthetic Construct

 <400> 271
 ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
 aaacagatgg ctgcaaagaa atacctgaac tccatcaaga accaccgtta atgagaattc 120

 <210> 272
 <211> 120
 <212> DNA
 <213> Artificial

 <220>
 <223> Synthetic Construct

 <400> 272
 ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
 aaacagatgg ctgcaaagaa atacctgaac tccatcaaga acatccgtta atgagaattc 120

 <210> 273
 <211> 120
 <212> DNA
 <213> Artificial

 <220>
 <223> Synthetic Construct

 <400> 273
 ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
 aaacagatgg ctgcaaagaa atacctgaac tccatcaaga acctgcgtta atgagaattc 120

 <210> 274
 <211> 120
 <212> DNA
 <213> Artificial

 <220>
 <223> Synthetic Construct

 <400> 274
 ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
 aaacagatgg ctgcaaagaa atacctgaac tccatcaaga acatgcgtta atgagaattc 120

 <210> 275
 <211> 120
 <212> DNA
 <213> Artificial

 <220>
 <223> Synthetic Construct

 <400> 275

ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
aaacagatgg ctgcaaagaa atacctgaac tccatcaaga acaaccgtta atgagaattc 120

<210> 276
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 276
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
aaacagatgg ctgcaaagaa atacctgaac tccatcaaga acccgcgta atgagaattc 120

<210> 277
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 277
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
aaacagatgg ctgcaaagaa atacctgaac tccatcaaga accagcgta atgagaattc 120

<210> 278
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 278
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
aaacagatgg ctgcaaagaa atacctgaac tccatcaaga accgccgta atgagaattc 120

<210> 279
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 279
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
aaacagatgg ctgcaaagaa atacctgaac tccatcaaga acagccgta atgagaattc 120

<210> 280
<211> 120
<212> DNA

<213> Artificial

<220>

<223> Synthetic Construct

<400> 280

ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60

aaacagatgg ctgcaaagaa atacctgaac tccatcaaga acacccgtta atgagaattc 120

<210> 281

<211> 119

<212> DNA

<213> Artificial

<220>

<223> Synthetic Construct

<400> 281

gatccatcga aggtcgtcac tccgacgctg ttttcaccga caactacacg cgtctgcgta 60

aacagatggc tgcaaagaaa tacctgaact ccatcaagaa cgtgcgttaa tgagaattc 119

<210> 282

<211> 120

<212> DNA

<213> Artificial

<220>

<223> Synthetic Construct

<400> 282

ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60

aaacagatgg ctgcaaagaa atacctgaac tccatcaaga actggcggtta atgagaattc 120

<210> 283

<211> 120

<212> DNA

<213> Artificial

<220>

<223> Synthetic Construct

<400> 283

ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60

aaacagatgg ctgcaaagaa atacctgaac tccatcaaga actaccgtta atgagaattc 120

<210> 284

<211> 120

<212> DNA

<213> Artificial

<220>

<223> Synthetic Construct

<400> 284

ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60

aaacagatgg ctgcaaagaa atacctgaac tccatcaaga acaaggcgta atgagaattc 120

<210> 285
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 285
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60

aaacagatgg ctgcaaagaa atacctgaac tccatcaaga acaaggacta atgagaattc 120

<210> 286
<211> 119
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 286
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60

aaacagatgg ctgcaaagaa atacctgaac tccatcaaga acaaggagta agagaattc 119

<210> 287
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 287
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60

aaacagatgg ctgcaaagaa atacctgaac tccatcaaga acaagttcta atgagaattc 120

<210> 288
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 288
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60

aaacagatgg ctgcaaagaa atacctgaac tccatcaaga acaaggccta atgagaattc 120

<210> 289
<211> 120
<212> DNA
<213> Artificial

<220>
 <223> Synthetic Construct

<400> 289
 ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
 aaacagatgg ctgcaaagaa atacctgaac tccatcaaga acaagcacta atgagaattc 120

<210> 290
 <211> 120
 <212> DNA
 <213> Artificial

<220>
 <223> Synthetic Construct

<400> 290
 ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
 aaacagatgg ctgcaaagaa atacctgaac tccatcaaga acaagatcta atgagaattc 120

<210> 291
 <211> 120
 <212> DNA
 <213> Artificial

<220>
 <223> Synthetic Construct

<400> 291
 ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
 aaacagatgg ctgcaaagaa atacctgaac tccatcaaga acaagaagta atgagaattc 120

<210> 292
 <211> 120
 <212> DNA
 <213> Artificial

<220>
 <223> Synthetic Construct

<400> 292
 ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
 aaacagatgg ctgcaaagaa atacctgaac tccatcaaga acaagctgta atgagaattc 120

<210> 293
 <211> 120
 <212> DNA
 <213> Artificial

<220>
 <223> Synthetic Construct

<400> 293
 ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
 aaacagatgg ctgcaaagaa atacctgaac tccatcaaga acaagatgta atgagaattc 120

<210> 294
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 294
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
aaacagatgg ctgcaaagaa atacctgaac tccatcaaga acaagaacta atgagaattc 120

<210> 295
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 295
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
aaacagatgg ctgcaaagaa atacctgaac tccatcaaga acaagccgta atgagaattc 120

<210> 296
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 296
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
aaacagatgg ctgcaaagaa atacctgaac tccatcaaga acaagcagta atgagaattc 120

<210> 297
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 297
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
aaacagatgg ctgcaaagaa atacctgaac tccatcaaga acaagagcta atgagaattc 120

<210> 298
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 298
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
aaacagatgg ctgcaaagaa atacctgaac tccatcaaga acaagaccta atgagaattc 120

<210> 299
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 299
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
aaacagatgg ctgcaaagaa atacctgaac tccatcaaga acaaggtgta atgagaattc 120

<210> 300
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 300
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
aaacagatgg ctgcaaagaa atacctgaac tccatcaaga acaagtggtta atgagaattc 120

<210> 301
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 301
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
aaacagatgg ctgcaaagaa atacctgaac tccatcaaga acaagtacta atgagaattc 120

<210> 302
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 302
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
aaacagatgg ctgcaaagaa atacctgaac tccatcaaga accgtatcta atgagaattc 120

<210> 303

<211> 120
 <212> DNA
 <213> Artificial

 <220>
 <223> Synthetic Construct

 <400> 303
 ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
 aaacagatgg ctggcaagaa atacctgaac tccatcaaga accgtatcta atgagaattc 120

 <210> 304
 <211> 120
 <212> DNA
 <213> Artificial

 <220>
 <223> Synthetic Construct

 <400> 304
 ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
 aaacagatgg ctaaaaagaa atacctgaac tccatcaaga accgtatcta atgagaattc 120

 <210> 305
 <211> 120
 <212> DNA
 <213> Artificial

 <220>
 <223> Synthetic Construct

 <400> 305
 ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
 aaacagatgg ctcgcaagaa atacctgaac tccatcaaga accgtatcta atgagaattc 120

 <210> 306
 <211> 120
 <212> DNA
 <213> Artificial

 <220>
 <223> Synthetic Construct

 <400> 306
 ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
 aaacagatgg cttccaagaa atacctgaac tccatcaaga accgtatcta atgagaattc 120

 <210> 307
 <211> 120
 <212> DNA
 <213> Artificial

 <220>
 <223> Synthetic Construct

 <400> 307

ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
aaacagatgg ctgcaaagaa atacctgaac tccatcccga accgtatcta atgagaattc 120

<210> 308
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 308
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
aaacagatgg ctggcaagaa atacctgaac tccatcccga accgtatcta atgagaattc 120

<210> 309
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 309
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
aaacagatgg ctaaaaagaa atacctgaac tccatcccga accgtatcta atgagaattc 120

<210> 310
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 310
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
aaacagatgg ctgcgaagaa atacctgaac tccatcccga accgtatcta atgagaattc 120

<210> 311
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 311
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
aaacagatgg cttccaagaa atacctgaac tccatcccga accgtatcta atgagaattc 120

<210> 312
<211> 120
<212> DNA

<213> Artificial

<220>

<223> Synthetic Construct

<400> 312

ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60

aaacagatgg ctgcaaagaa atacctgaac tccatccaga accgtatcta atgagaattc 120

<210> 313

<211> 120

<212> DNA

<213> Artificial

<220>

<223> Synthetic Construct

<400> 313

ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60

aaacagatgg ctggcaagaa atacctgaac tccatccaga accgtatcta atgagaattc 120

<210> 314

<211> 120

<212> DNA

<213> Artificial

<220>

<223> Synthetic Construct

<400> 314

ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60

aaacagatgg ctaaaaagaa atacctgaac tccatccaga accgtatcta atgagaattc 120

<210> 315

<211> 120

<212> DNA

<213> Artificial

<220>

<223> Synthetic Construct

<400> 315

ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60

aaacagatgg ctgcaagaa atacctgaac tccatccaga accgtatcta atgagaattc 120

<210> 316

<211> 120

<212> DNA

<213> Artificial

<220>

<223> Synthetic Construct

<400> 316

ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60

aaacagatgg cttccaagaa atacctgaac tccatccaga accgtatcta atgagaattc 120

<210> 317
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 317
ggatccatcg aaggctcgta ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60

aaacagatgg ctgcaaagaa atacctgaac tccatccgta accgtatcta atgagaattc 120

<210> 318
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 318
ggatccatcg aaggctcgta ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60

aaacagatgg ctggcaagaa atacctgaac tccatccgta accgtatcta atgagaattc 120

<210> 319
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 319
ggatccatcg aaggctcgta ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60

aaacagatgg ctaaaaagaa atacctgaac tccatccgta accgtatcta atgagaattc 120

<210> 320
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 320
ggatccatcg aaggctcgta ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60

aaacagatgg ctcgcaagaa atacctgaac tccatccgta accgtatcta atgagaattc 120

<210> 321
<211> 120
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 321
ggatccatcg aaggtcgtca ctccgacgct gttttcaccg acaactacac gcgtctgcgt 60
aaacagatgg cttccaagaa atacctgaac tccatccgta accgatctta atgagaattc 120

<210> 322
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 322

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Lys Asn Arg Ile
20 25 30

<210> 323
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 323

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Gly Lys Lys Tyr Leu Asn Ser Ile Lys Asn Arg Ile
20 25 30

<210> 324
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 324

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Lys Lys Lys Tyr Leu Asn Ser Ile Lys Asn Arg Ile
20 25 30

<210> 325
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 325

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Arg Lys Lys Tyr Leu Asn Ser Ile Lys Asn Arg Ile
20 25 30

<210> 326
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 326

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ser Lys Lys Tyr Leu Asn Ser Ile Lys Asn Arg Ile
20 25 30

<210> 327
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 327

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Pro Asn Arg Ile
20 25 30

<210> 328
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 328

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Gly Lys Lys Tyr Leu Asn Ser Ile Pro Asn Arg Ile
20 25 30

<210> 329
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 329

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Lys Lys Lys Tyr Leu Asn Ser Ile Pro Asn Arg Ile
20 25 30

<210> 330
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 330

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Arg Lys Lys Tyr Leu Asn Ser Ile Pro Asn Arg Ile
20 25 30

<210> 331
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 331

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ser Lys Lys Tyr Leu Asn Ser Ile Pro Asn Arg Ile
20 25 30

<210> 332
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 332

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Gln Asn Arg Ile
20 25 30

<210> 333
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 333

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Gly Lys Lys Tyr Leu Asn Ser Ile Gln Asn Arg Ile
20 25 30

<210> 334
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 334

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Lys Lys Lys Tyr Leu Asn Ser Ile Gln Asn Arg Ile
20 25 30

<210> 335
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 335

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Arg Lys Lys Tyr Leu Asn Ser Ile Gln Asn Arg Ile
20 25 30

<210> 336

<211> 30

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>

<221> PEPTIDE

<222> (1)..(30)

<400> 336

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ser Lys Lys Tyr Leu Asn Ser Ile Gln Asn Arg Ile
20 25 30

<210> 337

<211> 30

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>

<221> PEPTIDE

<222> (1)..(30)

<400> 337

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ala Lys Lys Tyr Leu Asn Ser Ile Arg Asn Arg Ile
20 25 30

<210> 338

<211> 30

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 338

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Gly Lys Lys Tyr Leu Asn Ser Ile Arg Asn Arg Ile
20 25 30

<210> 339
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 339

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Lys Lys Lys Tyr Leu Asn Ser Ile Arg Asn Arg Ile
20 25 30

<210> 340
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 340

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Arg Lys Lys Tyr Leu Asn Ser Ile Arg Asn Arg Ile
20 25 30

<210> 341
<211> 30

<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(30)

<400> 341

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Ser Lys Lys Tyr Leu Asn Ser Ile Arg Asn Arg Ile
20 25 30

<210> 342
<211> 19
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(19)

<400> 342

Cys Arg Lys Gln Val Ala Ala Lys Lys Tyr Leu Gln Ser Ile Lys Asn
1 5 10 15

Lys Arg Tyr

<210> 343
<211> 9
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<220>
<221> PEPTIDE
<222> (1)..(9)

<400> 343

Ser Trp Cys Glu Pro Gly Trp Cys Arg
1 5